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| APPLICATION NO.                    | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|------------------------------------|-------------|----------------------|---------------------|------------------|
| 10/716,167                         | 11/18/2003  | Hans Kuehn           | KUHNP0101US         | 3879             |
| 23908                              | 7590        | 11/01/2006           | EXAMINER            |                  |
| RENNER OTTO BOISSELLE & SKLAR, LLP |             |                      | MUSSER, BARBARA J   |                  |
| 1621 EUCLID AVENUE                 |             |                      | ART UNIT            | PAPER NUMBER     |
| NINETEENTH FLOOR                   |             |                      |                     |                  |
| CLEVELAND, OH 44115                |             |                      | 1733                |                  |

DATE MAILED: 11/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                               |                  |  |
|------------------------------|-------------------------------|------------------|--|
| <b>Office Action Summary</b> | Application No.               | Applicant(s)     |  |
|                              | 10/716,167                    | KUEHN, HANS      |  |
|                              | Examiner<br>Barbara J. Musser | Art Unit<br>1733 |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 03 August 2006.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 16-32 is/are pending in the application.  
 4a) Of the above claim(s) 16 and 20 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 17-19 and 21-32 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

|  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application |
|  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 17-19, 21, 22, and 24-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klauke et al.(U.S. Patent 5,823,391) in view of Brewster et al.(U.S. Patent 5,888,598)

Klauke et al. discloses forming a toothpaste tube by blow molding a tube preform and cutting open the open end to form an open end for filling the tube.(Col. 1, ll. 56-61) The reference does not disclose the specifics of the formation process or the specific shape of the preform prior to blow molding, but it does disclose that the blow molding occurs in accordance with well-known procedures.(Col. 3, ll. 56-64) Brewster et al. discloses that in conventional blow molding, the preform is heated and biaxially expanded.(Col. 14, ll. 25-40). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the conventional blow molding process of Brewster et al. whereby the preform is heated and biaxially expanded as the blow molding process of Klauke et al. since Klauke et al. discloses that well-known blow molding processes are used and Brewster et al. discloses that heating and biaxially expanding the preform during blow molding is conventional.(Col. 14, ll. 31-40)

Regarding claims 21 and 22, while the references do not disclose transporting the preform to a different location where it is expanded, one in the art would appreciate that transporting a perform takes less room than transporting the expanded final product and it would have been obvious to one of ordinary skill in the art at the time the invention was made to transport the performs to a different site for expanding since this would enable more items to be shipped in the same amount of space thus reducing shipping costs as is well-known in the transporting arts.

Regarding claim 24, Klauke et al. does not disclose if the closure region retains its original shape during blow molding. However, Brewster et al. discloses that the closure region retains its original shape during blow molding(Col. 14, ll. 26-28) It would have been obvious to one of ordinary skill in the art at the time the invention was made since it is well-known and conventional in the blow-molding arts to form the threads during the perform forming processes as shown for example by Brewster et al. which discloses the closure region of the perform retains its original shape.(Col. 14, ll. 41-44)

Regarding claim 25, since the final product is intended to be a toothpaste tube, one in the art would appreciate that the side regions would have the softness enabling a viscous material to be squeezed out.

Regarding claims 26 and 28, Brewster et al. discloses the expansion is due to an expansion gas(Col. 14, ll. 37) which is at a higher pressure than atmospheric, i.e. is compressed.(Col. 16, ll. 68) The reference does not disclose that the gas is air. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use air as the expansion gas in Klauke et al. and Brewster et al. since the use

of air as an expansion gas is well-known and conventional and since air is cheaper than any other expansion gas.

Regarding claim 27, Brewster et al. discloses the heating of the perform is via infrared heating.(Col. 15, ll. 7)

Regarding claim 28, while the references do not disclose that expansion gas is hot, one in the art would appreciate that since the gas is intended to expand a hot container and since the cooling of the container caused by a cold gas would restrict expansion that the gas used would be hot.

Regarding claim 29, while Klauke et al. does not disclose printing directly on the tube, it does disclose that it is conventional to decorate or label the tube in some manner.(Col. 4, ll. 50-56) It would have been obvious to one of ordinary skill in the art at the time the invention was made to print on the tube since this is a well-known and conventional alternative to applying a printed label to the tube.

Regarding claim 30, Klauke et al. discloses filling the tubes after cutting open the end and then sealing the ends.(Col. 1, ll. 45-47) While this does not specifically disclose filling via the open end, one in the art would appreciate that if the tube were filled via the end opposite the cut end, it would not be necessary to seal the open end after filling the tube, and therefore the reference suggests filling the tube from the cut end. Since the ends of the thermoplastic tube sections are intended to be sealed(Figure 10) and welding it heating to bond and the thermoplastics do not seal together unless they are heated, one in the art would appreciate that the ends of the tubes of Klauke et al. would be welded.

Regarding claim 31, since the end of the thermoplastic tube sections are intended to be sealed, one in the art would appreciate that the thermoplastic used would be one which would be capable of being heated to seal, i.e. welded.

3. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Klauke et al. and Brewster et al. as applied to claim 17 above, and further in view of McGie et al.(U.S. Patent 4,011,968)

The references cited above do not disclose the wall thickness. McGie et al. discloses that the thickness of each of the layers of the toothpaste tube walls can be 0.5 mils.(Col. 3, ll. 2-7) Therefore the thickness of all of the layers of the tube together can be less than 2 mils.(Figure 8) Since the tube is intended to be flexible, one in the art would appreciate that the walls would be thin. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use any conventional wall thicknesses such as that of McGie et al. since such thicknesses are conventional in the toothpaste art.

#### ***Response to Arguments***

4. Applicant's arguments filed 8/3/06 have been fully considered but they are not persuasive.

Regarding applicant's use of the translation of the foreign priority document to overcome the rejection, the foreign priority document does not fully support the claimed invention and thus its filing date cannot be used to overcome the rejection over Klauke et al. A thorough reading of the priority document shows no suggestion that the concept

of cutting the end off the tube after blow molding it was known. While the document suggests injection molding and filling a tube from the bottom, the priority document would not have led one to the concept of cutting off the bottom of an injection molded container, but rather would have suggested forming the tube without a bottom as in Figure 1 of the priority document.

It is noted that the claims as they currently stand read on forming a soda bottle, and in a post production process, cutting off the bottom of the bottle either during recycling or to form, for example, a yarn holder for holding a spool of yarn as is apparently well known in the knitting and crocheting arts.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barbara J. Musser whose telephone number is (571)

272-1222. The examiner can normally be reached on Monday-Thursday; alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571)-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*BJM*  
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